

AMENDMENTS TO THE CLAIMS

1. (Currently amended) A mattress comprising a plurality of spring coils, each spring coil having a top with a first width, a middle with a second width, and bottom with a third width, the top and the bottom connected by a continuous coil of wire, the spring coil having a longitudinal taper such that the third width of the bottom is substantially equal to the second width of the middle, and the first width of the top is smaller than the second width of the middle, wherein each spring coil is unattached to adjacent spring coils along a top half of that spring coil.
2. (Canceled)
3. (Original) The mattress of claim 1 wherein each spring coil is a pocket coil.
4. (Original) The mattress of claim 3 wherein each spring coil is attached to at least one adjacent one of the plurality of spring coils with an adhesive.
5. (Original) The mattress of claim 4 wherein a top portion of each spring coil is unadhered to any adjacent spring coil.
6. (Original) The mattress of claim 4 wherein a top half of each spring coil is unadhered to any adjacent spring coil.
7. (Original) The mattress of claim 1 wherein each spring coil is an open coil.
8. (Original) The mattress of claim 7 wherein each spring coil is attached to at least one adjacent one of the plurality of spring coils with one or more hog rings.
9. (Original) The mattress of claim 7 wherein a top portion of each spring coil is unattached to any adjacent spring coil.
10. (Original) The mattress of claim 7 wherein a top half of each spring coil is unattached to any adjacent spring coil.

11. (Original) The mattress of claim 1 wherein the plurality of spring coils includes a plurality of pocket coils and a plurality of open coils.

12. (Currently amended) A mattress comprising a plurality of spring coils, each spring coil having a top and a bottom, the top and the bottom connected by a continuous coil of wire characterized by a convex longitudinal taper along an exterior surface thereof, the convex longitudinal taper having a radius of curvature that monotonically decreases from the bottom of the spring coil to the top of the spring coil, wherein each spring coil is unattached to adjacent spring coils along a top half of that spring coil.

13. (Canceled)

14. (Original) A mattress comprising a plurality of spring coils each having a top and a bottom, the plurality of spring coils arranged adjacent to one another to form a planar top surface along the tops thereof and a planar bottom surface along the bottoms thereof, a third planar surface forming a center line between the planar top surface and the planar bottom surface, the plurality of spring coils maintained in fixed relation to one another below the center line such that the top of each one of the plurality of spring coils may move independently perpendicular to the top planar surface with respect to each other one of the plurality of spring coils.

15. (Canceled)

16. (Canceled)

17. (Currently amended) A method of manufacturing a mattress comprising:
providing a plurality of spring coils;
arranging the plurality of spring coils adjacent to one another in a manner suitable for use in a mattress core;
attaching a bottom portion of each one of the plurality of spring coils to at least one other one of the plurality of spring coils; and

enclosing the plurality of spring coils in one or more upholstery layers without attaching a top portion of any one of the plurality of spring coils to any other one of the plurality of spring coils;

~~and~~The method of claim 15 further comprising encasing each one of the plurality of spring coils in a pocket and attaching the bottom portion with an adhesive.

18. (Currently amended) The mattress of claim 15 further comprising attaching the bottom portion with one or more hog rings.

19. (Currently amended) A method of manufacturing a mattress comprising:
providing a plurality of spring coils;
providing a bottom surface of a mattress;
arranging the plurality of spring coils adjacent to one another on the bottom surface in a manner suitable for use in a mattress core;
attaching a bottom portion of each one of the plurality of spring coils to the bottom surface; and
enclosing the plurality of spring coils in one or more upholstery layers without attaching a top ~~portion~~half of any one of the plurality of spring coils to any other one of the plurality of spring coils.

20. (Original) The method of claim 19 further comprising attaching the bottom portion of one or more of the plurality of spring coils to an adjacent one of the plurality of spring coils.

21. (New) A mattress comprising a plurality of spring coils, each spring coil having a top with a first width, a middle with a second width, and bottom with a third width, the top and the bottom connected by a continuous coil of wire, the spring coil having a longitudinal taper such that the third width of the bottom is substantially equal to the second width of the middle, and the first width of the top is smaller than the second width of the middle, wherein each spring coil is a pocket coil, wherein each spring coil is attached to at least one adjacent one of the plurality of spring coils with an adhesive, and wherein a top portion of each spring coil is unadhered to any adjacent spring coil.